Incorrect Easter date

Posted by Jorge_Luis - 2012/01/31 14:27

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Using the code in the Wiki for calculate Easter gives me for 2012 the date of Good Friday on April 7th. But April 7th is Saturday.
I was using this code in an Excel ready-to-print calendar. It's more or less the same code, but with another approach. For 2012, it gives me the correct date of April 6th.

```
function Holidays_CalculateEaster(year)
  golden = (year % 19) + 1
  c = math.floor(year/400) + math.floor(8*(math.floor(year/100)+11)/25) - math.floor(year/100)
  s = (11 * golden + c) % 30
  if (s < 0) then
    s = s + 30
  end
  pfm = os.time{year=year, month=4, day=19} - s * 24 * 60 * 60
  if (pfm == os.time{year=year, month=4, day=19}) then
    pfm = pfm - 24 * 60 * 60
  elseif (pfm == os.time{year=year, month=4, day=18} and golden > 11) then
    pfm = pfm - 24 * 60 * 60
  end
  sunday = pfm + (7 - tonumber(os.date("%w", pfm))) * 24 * 60 * 60
  friday = sunday - 2 * 24 * 60 * 60

  return {year, tonumber(os.date("%m", friday)), tonumber(os.date("%d", friday))}
end
```

PS: Maybe 86400 is better than 24*60*60, but it's more easy to understand.

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Re:Incorrect Easter date

Posted by anoob - 2012/02/03 10:48

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I tested it, seem no problem.
 http://www.rainlendar.net/cms/images/fbfiles/images/2012_02_03_1.png

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Re:Incorrect Easter date

Posted by Jorge_Luis - 2012/02/03 12:19

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Sorry anoob, which one has no problem?
The code I pasted is the new one that I'm using.

Using the code from the wiki (http://wiki.rainlendar.info/images/0/04/Holidays.lua) brings me other values. Here are the values I got doing it matematically, using year=2012:

golden = 18
dom = 1
solar = 3
lunar = 1
pfm = -13 (< 0) ==> pfm = 17
tmp = 0
friday = 17
YEAR=2012 MONTH=4 DAY=7

I'm thinking... what if it's something related with the timezone? (I'm GMT-3)

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Re:Incorrect Easter date

Posted by anoob - 2012/02/04 03:07

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Oh!, I was testing the first code you posted.

About the second posted code, Are you sure it is correct?
I test it with many different years, and it seems allways has 1 day offset. so i think that it maybe incorrect.
suggest modify following line as:
friday = math.floor(pfm + tmp) - 1

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Re:Incorrect Easter date
Posted by Rainy - 2012/02/18 07:05
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I updated the script with the Jorge_Luis' version of the calculation.

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Re:Incorrect Easter date
Posted by anoob - 2012/02/18 11:31
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A small mistake (not affect the displayed) about Good Friday,
End Time earlier than Start Time in the Event-Dialog.
Suggestion: remove the line 89 - strEvent = strEvent .. "DTEND;VALUE=DATE:" .. string.format("%04i%02i%02i", date, date, date) .. "\n"

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Re:Incorrect Easter date
Posted by Rainy - 2012/03/03 03:42
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The end date is now removed from the event.

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